Department of **Water and Environmental Regulation**
Department of **Biodiversity, Conservation and Attractions**
GOVERNMENT OF WESTERN AUSTRALIA

Swan Canning catchment
Nutrient report 2017

Claise Brook

Claise Brook was first named in 1827 (as Clause's Brook) after the naval surgeon, Frederick Clause who was present on Captain James Stirling's expedition of the Swan River. It was a seasonal waterway, typically dry in summer and flowing in winter with numerous interconnected freshwater lakes which drained to the Swan Estuary. During the 1800s land was reclaimed from the feeder lakes, enabling the development of East Perth. The drain now consists almost exclusively of closed pipes with the Hyde Park lakes being the largest area of open water.

During the late 1880s to early 1900s the brook was used as the main effluent outlet of Perth. Historical landuses in the area include the East Perth Gasworks, East Perth Power Station and East Perth railway yards and workshops, these have all since ceased. In the 1990s it was determined that the East Perth Gasworks site and adjacent waterways were extensively contaminated. Large scale remediation was undertaken in 1994–95.

The predominant soil types in Claise Brook Main Drain are Spearwood Sands with a small area of Bassendean Sands in the north-western corner and neutral red and yellow earths near the Swan Estuary. Most of the soils in the catchment have poor nutrient-retention capacities.

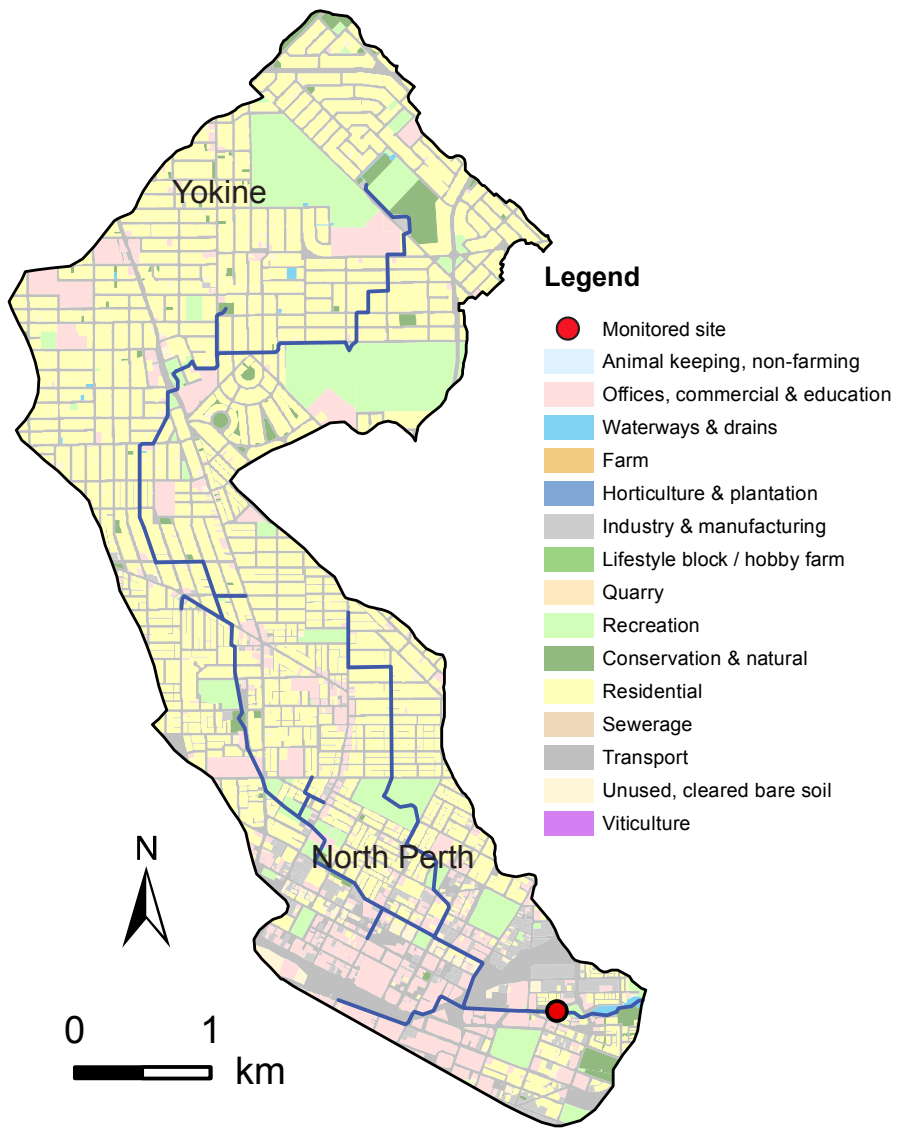
Water quality samples are collected fortnightly near the discharge point of the drain into the Swan Estuary. This site gives an indication of the nutrient concentrations leaving the catchment and entering the estuary. It does not represent nutrient concentrations in upstream areas.

Claise Brook – facts and figures

Average rainfall (2013–17)	~ 730 mm per year (Perth metro)
Catchment area	16 km^2
Per cent cleared area (2005)	98%
River flow	Dries intermittently throughout the year No major water supply dams in catchment
Main land uses (2005)	Residential and transport (roads)

Houses in Claisebrook Cove, March 2010.

Revegatated urban wetland in Dog Swamp Reserve, August 2010.



Nutrient Summary: concentrations, rainfall and targets

Year	Site	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Annual rainfall (mm)	009225	703.0	807.8	607.2	503.8	860.8	608.2	782.4	674.4	617.8	715.8	854.0
TN median (mg/L)	CB13					1.40	1.40	1.40	1.40	1.20	1.20	1.30
TP median (mg/L)	CB13					0.035	0.029	0.047	0.045	0.053	0.045	0.049

TN short term target = 2.0 mg/L TN long term target = 1.0 mg/L TP short term target = 0.2 mg/L TP long term target = 0.1 mg/L

insufficient data to test target | failing both short and long-term target | passing short but failing long-term target | passing both short and long-term target

* Best estimate using available data. # Statistical tests that account for the number of samples and large data variability are used for testing against targets on three years of winter data. Thus the annual median value can be above the target even when the site passes the target (or below the target when the site fails).

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